CHIGGERS (ACARI: TROMBICULIDAE) FROM SOME SMALL MAMMALS FROM NIGERIA¹

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ABSTRACT: Six species of chiggers were recorded from mammals from Nigeria: Gahrliepia (G.) bellieri, G. (Schoengastiella) nr. combesi, Leptotrombidium (Hypotrombidium) legaci, Microtrombicula iecensis, Neotrombicula nigeriensis, and Schoengastia eburnensis. Of these, only N. nigeriensis and L. legaci had been reported previously from Nigeria.

Recently, two of us (Whitaker and Matthysse, 1982) presented information on ectoparasites of some small mammals in Nigeria. The present paper presents information on the larval trombiculids or chiggers from that collection. Mammal species collected which were not found infested by chiggers are as follows (with numbers of hosts examined in parentheses): Arvicanthis niloticus (2), Cricetomys gambianus (6), Leggada musculoides (1), Mastomys natalensis (6), Mus musculoides (2), Praomys tullbergi (9), and Rattus alexandrianus (1). All of the uninfested hosts were rodents.

Four species of mammals were recorded as hosts for 112 chiggers of 6 species as follows:

Insectivora (Soricidae)

Crocidura flavescens (I. Geoffroy, 1827) The single specimen examined (Ibadan, 18 Apr 1975) of the White-footed shrew (= C. manni) yielded 24 larvae of Leptotrombidum (Hypotrombidium) legaci (Andre, 1950). This species has been previously reported from a number of different hosts, including Felis sp., Taterillus e. emini, Mylomys cunninghamei alberti, Lemniscomys s. striatus and Gallus domesticus, from the Ivory Coast, Ghana and the Central African Republic.

Rodentia (Muridae)

Dasymys incomtus (Sundevall, 1847) Two of the 7 Shaggy-haired rats examined (Ibadan; 30 Apr., 12 May 1975) were each infested by 1 specimen of Schoengastia eburnensis Taufflief, 1960. This chigger was previously reported from an antelope, Neotragus pygmaeus, taken from the Ivory Coast.

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Lophuromys sikapusi (Temminck, 1853) The single specimen of the harsh-furred mouse examined (Ibadan, 23 Apr 1975) was infested by 29 chiggers representing 3 species: 7 Gahrliepia (Gahrliepia) bellieri Taufflieb. 1965; 12 Leptotrombidium (H.) legaci and 10 Neotrombicula nigeriensis (Ewing, 1928). Gahrliepia (G.) bellieri was originally described by Taufflieb (1965) from Crocidura sp. taken from the Ivory Coast and Neotrombicula nigeriensis was described by Ewing (1928) from Funisciurus

auriculatus oliviae taken in Nigeria.

Rattus rattus (Linneaus, 1758) A total of 53 chiggers of 4 species was recovered from 9 of 13 black rats examined. All rats with chiggers were taken between April 10 and April 22, 1975, at Ibadan. Leptotrombidium legaci was represented by 16 larvae on 6 hosts, 12 Microtrombicula iecensis Taufflieb, 1960, on 3 host individuals, 24 Neotrombicula nigeriensis on 6 host individuals, and a single Gahrliepia (Schoengastiella) likely combesi Taufflieb, 1966. Microtrombicula iecensis was described by Taufflieb (1960a) from Rattus frugivorus taken in Brazzaville, the Congo. Taufflieb (1964) described Gahrliepia (S.) combesi from Aethomys sp. taken near Bangui, Central African Republic. The specimen in the present collection has been damaged, thus precluding positive identification. In all observable characters, this specimen agrees with G. (S.) combesi.

Of the 6 species of chiggers collected during this study, only *Neotrombicula nigeriensis* and *Leptotrombidium* (*H*.) *legaci* had been previously reported from Nigeria. Host records from shrews and rodents are new for all chigger

species except Leptotrombidium (H.) legaci.

LITERATURE CITED

Andre, M. 1950. Une nouvelle forme larvaire de *Thrombicula* d'Afrique Equatoriale. *Bull.*

Mus. His. Natur., 2^e Serie 22(5): 577-81. Ewing, H.E. 1928. A preliminary key to the

Ewing, H.E. 1928. A preliminary key to the larvae of fifteen species of the mite genus *Trombicula*, with descriptions of four new species. *Proc. Entomol. Soc. Wash.* 80: 77-80. Taufflieb, R. 1960. Etude d'une collection de Trombiculidae d'Afrique Occidentale. *Acarologia* 2: 224-37.

1960a. Notes sur les Trombiculidae (Acarina) de la region de Brazzaville.

Description de trois nouvelle especies. Acarologia 2: 472-79.

. 1964. Les *Schoengastiella* (Acarina, Trombiculidae) de la region Subsaharienne. *Acarologia* 6: 455-75.

. 1965. Le sous-genre *Gahrliepia* (Acarina, Trombiculidae) en Afrique Subsaharienne. *Acarologia* 7: 510-22.

Whitaker, J.O., Jr. & J.G. Matthysse. 1982. Records of some ectoparasites from Nigeria. *Entomol. News* 93: 4: 95-102.